



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/659,948  
Source: O/P  
Date Processed by STIC: 9/23/2003

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 04/24/2003

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER:

10/659,948

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1        Wrapped Nucleics  
    Wrapped Aminos     The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
  
- 2        Invalid Line Length     The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
  
- 3        Misaligned Amino  
    Numbering     The numbering under each 5<sup>th</sup> amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
  
- 4        Non-ASCII     The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. Please **ensure your subsequent submission is saved in ASCII text**.
  
- 5        Variable Length     Sequence(s)        contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
  
- 6        PatentIn 2.0  
    "bug"     A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)       . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
  
- 7        Skipped Sequences  
    (OLD RULES)     Sequence(s)        missing. If intentional, please insert the following lines for **each** skipped sequence:  
                          (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                          (i)     SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                          (xi)  SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                          This sequence is intentionally skipped  
  
                          Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
  
- 8        Skipped Sequences  
    (NEW RULES)     Sequence(s)        missing. If intentional, please insert the following lines for **each** skipped sequence.  
                          <210> sequence id number  
                          <400> sequence id number  
                          000
  
- 9        Use of n's or Xaa's  
    (NEW RULES)     Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                          Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.  
                          In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
  
- 10        Invalid <213>  
    Response     Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
  
- 11        Use of <220>     Sequence(s)        missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
                          (See "Federal Register," 07/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
  
- 12        PatentIn 2.0  
    "bug"     Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
  
- 13        Misuse of n/Xaa     "n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid



OIEP

## RAW SEQUENCE LISTING

DATE: 09/23/2003

PATENT APPLICATION: US/10/659,948

TIME: 18:14:47

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

3 <110> APPLICANT: Hovanec, Timothy A  
 5 <120> TITLE OF INVENTION: Method of Using Ammonia-Oxidizing Bacteria  
 7 <130> FILE REFERENCE: 81289-294309  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/659,948  
 C--> 9 <141> CURRENT FILING DATE: 2003-09-10  
 9 <150> PRIOR APPLICATION NUMBER: US 09/573,684  
 10 <151> PRIOR FILING DATE: 2000-05-19  
 12 <150> PRIOR APPLICATION NUMBER: US 60/386,217  
 13 <151> PRIOR FILING DATE: 2002-09-19  
 15 <150> PRIOR APPLICATION NUMBER: US 60/386,218  
 16 <151> PRIOR FILING DATE: 2002-09-19  
 18 <150> PRIOR APPLICATION NUMBER: US 60/386,219  
 19 <151> PRIOR FILING DATE: 2002-09-19  
 21 <160> NUMBER OF SEQ ID NOS: 23  
 23 <170> SOFTWARE: PatentIn version 3.2  
 25 <210> SEQ ID NO: 1  
 26 <211> LENGTH: 1457  
 27 <212> TYPE: DNA  
 28 <213> ORGANISM: AOB Type A R7clone140 16S rDNA (SEQ ID NO:1)  
 30 <400> SEQUENCE: 1  
 31 attgaacgct ggcggcatgc tttacacatg caagtcgaac ggcagcacgg atgcttgcat 60  
 33 ctgggtggcga gtggcggaagc ggtgagtaat gcatcggaac gtatccagaa gaggggggta 120  
 35 acgcatcgaa agatgtgcta ataccgcata tactctaagg aggaaagcag gggatcgaaa 180  
 37 gaccttgccg ttttgagcgc gccgatgtct gattagctag ttgggtgggt aaaggcctac 240  
 39 caaggcgacg atcagtagtt ggtctgagag gacgaccagc cacactggga ctgagacacg 300  
 41 gccagactc ctacgggagg cagcagtggg gaattttgga caatgggcgc aagcctgac 360  
 43 cagcaatgcc gcgtgagtga agaaggcctt cgggttgtaa agctctttca gtcgagaaga 420  
 45 aaaggttacg gtaaataatc gtgactcatg acggtatcga cagaagaagc accggctaac 480  
 47 tacgtgccag cagccgcggt aatacgtagg gtgcaagcgt taatcggaat tactgggcgt 540  
 49 aaagggtgcg caggcggtt tgtaagtcag atgtgaaatc cccgggctta acctgggaat 600  
 51 tgcgtttgaa actacaaggc tagagtgtgg cagagggagg tggattcca tgtgtagcag 660  
 53 tgaaatgctg agagatatgg aagaacatcg atggcgagg cagcctcctg ggtaaacact 720  
 55 gacgctcatg cacgaaagcg tggggagcaa acaggattag ataccctggt agtccacgcc 780  
 57 ctaaacgatg tcaactagtt gttgggcctt attaggcttg gtaacgaagc taacgcgtga 840  
 59 agttgaccgc ctggggagta cggtcgcaag attaaaactc aaagggaattg acggggaccc 900  
 61 gcacaagcgg tggattatgt ggattaattc gatgcaacgc gaaaaacctt acctacctt 960  
 63 gacatgtagc gaattttcta gagatagatt agtgcttcgg gaacgctaac acagggtgctg 1020  
 65 catggctgtc gtcagctcgt gtcgtgagat gttgggttaa gtcccgaac gagcgcaacc 1080  
 67 cttgtcatta attgccatca tttggttggg cactttaatg agactgccgg tgacaaaccg 1140  
 69 gaggaaggtg gggatgacgt caagtcctca tggcccttat gggtagggct tcacacgtaa 1200  
 71 tacaatggcg cgtacagagg gttgccaacc cgcgaggggg agctaattctc agaaagcgcg 1260  
 73 tcgtagtccg gatcggagtc tgcaactcga ctccgtgaag tcggaatcgc tagtaatcgc 1320  
 75 ggatcagcat gtcgcggtga atacgttccc gggctctgta cacaccgccc gtcacaccat 1380

Does Not Comply  
Corrected Diskette Needed

pp 1-5

not necessary

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DATE: 09/23/2003

PATENT APPLICATION: US/10/659,948

TIME: 18:14:47

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

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83 <211> LENGTH: 1457
84 <212> TYPE: DNA
85 <213> ORGANISM: AOB Type A1 R7clone187 16S rDNA (SEQ ID NO:2)
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90 ctggtggcga gtggcgacg ggtgagtaac gcatcggaac gtatccagaa gaggggggta 120
92 acgcatcgaa agatgtgcta ataccgcata tactctaagg aggaaagcag gggatcgaaa 180
94 gaccttgccg ttttgagcg gccgatgtct gattagctag ttggtgggt aaaggcctac 240
96 caaggcgacg atcagtagtt ggtctgagag gacgaccagc cacactggga ctgagacacg 300
98 gccagactc ctacgggagg cagcagtggg gaattttgga caatgggcgc aagcctgac 360
100 cagcaatgcc gcgtgagtga agaaggcctt cgggttgtaa agctctttca gtcgagaaga 420
102 aaaggttacg gtaataatc gtgacccatg acggtatcga cagaagaagc accggctaac 480
104 tacgtgccag cagccgcggt aatacgtagg gtgcaagcgt taatcggaat tactggcggt 540
106 aaaggggtgc caggcgccct tgtaagtcag atgtgaaatc cccgggctta acctgggaat 600
108 tgcgtttgaa actacaaagc tagagtgtgg cagagggagg tgggaattcca tgtgtagcag 660
110 tgaaatgcgt agagatatgg aagaacatcg atggcgaagg cagcctcctg ggtaaacact 720
112 gacgtcatg cacgaaagcg tggggagcaa acaggattag ataccctggg agtccacgcc 780
114 ctaaacgatg tcaactagtt gttgggcctt attaggcttg gtaacgaagc taacgcgtga 840
116 agttgaccgc ctggggagta cggtcgcaag attaaaactc aaaggaattg acggggagcc 900
118 gcacaagcgg tggattatgt ggattaattc gatgcaacgc gaaaaacctt acctaccctt 960
120 gacatgtagc gaattttcta gagatagatt agtgcttcgg gaacgctaac acaggtgctg 1020
122 catggctgtc gtcagctcgt gtcgtgagat gttgggttaa gtcccgaac gagcgcaacc 1080
124 cttgtcatta attgccatca tttggttggg cactttaatg agactgccgg tgacaaaccg 1140
126 gaggaagggt gggtagacgt caagtcctca tggcccttat gggtagggct tcacacgtaa 1200
128 tacaatggcg cgtacagagg gttgcccaacc cgcgaggggg agctaattctc agaaagcgcg 1260
130 tcgtagtccg gatcgagtc tgcaactcga ctccgtgaag tcggaatcgc tagtaatcgc 1320
132 ggatcagcat gtcgcggtga atacgttccc ggtcttgta cacaccgcc gtcacaccat 1380
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142 <213> ORGANISM: AOB Type B R3clone5 16S rDNA (SEQ ID NO:3)
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147 ggtggcgagt ggcgaacggg tgagtaatac atcggaacgt atcttcgagg gggggataac 120
149 gcaccgaaaag gtgtgctaac accgcataat ctccacggag aaaagcaggg gatcgcaaga 180
151 ccttgccgtc ttggagcggc cgatgtctga ttagctagtt ggtgaggtaa tggcttacca 240
153 aggcgacgat cagtagctgg tctgagagga cgaaccagcca cactgggact gagacacggc 300
155 ccagactcct acgggaggca gcagtgggga attttggaaca atgggggaaa ccctgatcca 360
157 gccatgccgc gtgagtgaag aaggccttcg ggttgtaag ctctttcagc cggaacgaaa 420
159 cggtcacggc taataccgt gactactgac ggtaccggaa gaagaagcac cggctaacta 480
161 cgtgccagca gccgcggtaa tacgtagggt gcaagcgta atcggaatta ctgggcgtaa 540
163 agcgtgcgca ggcggttttg taagtcagat gtgaaagccc cgggcttaac ctgggaactg 600
165 cgtttgaac tacaaggcta gagtgtggca gaggggggtg gaattccacg tgtagcagt 660
167 aatgcgtag agatgtggag gaacaccgat ggcgaaggca gcccctggg ttaacaccga 720

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## RAW SEQUENCE LISTING

DATE: 09/23/2003

PATENT APPLICATION: US/10/659,948

TIME: 18:14:47

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

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169 cgctcaggca cgaaagcgtg gggagcaaac aggattagat accctggttag tccacgccct 780
171 aaacgatgtc aactagtgtg cgggtcttaa cggacttggt aacgcagcta acgcgtgaag 840
173 ttggccgcct ggggagtagc gtcgcaagat taaaactcaa aggaattgac ggggacccgc 900
175 acaagcgggtg gattatgtgg attaatcga tgcaacgcga aaaaccttac ctacccttga 960
177 catgtaccga agcccgcgga gaggtgggtg tgcccgaag ggagcggtaa cacaggtgct 1020
179 gcatggctgt cgtcagctcg tgtcgtgaga tgttgggtta agtcccgcaa cgagcgcaac 1080
181 ccttgtcatt aattgccatc attcagttgg gcactttaat gaaactgccg gtgacaaacc 1140
183 ggaggaaggt ggggatgacg tcaagtctc atggccctta tgggtagggc ttcacacgta 1200
185 atacaatggc gcgtacagag ggttgccaac ccgcgagggg gagctaattc cagaaagcgc 1260
187 gtcgtagtcc ggatcggagt ctgcaactcg actccgtgaa gtcggaatcg ctagtaatcg 1320
189 cggatcagca tgtcgcggtg aatacgttcc cgggtcttgc acacaccgcc cgtcacacca 1380
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199 <213> ORGANISM: AOB Type C R5clone47 16S rDNA (SEQ ID NO:4)
201 <400> SEQUENCE: 4

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204 gccggcgagt ggcgaacggg tgagtaatac atcgaacgt gtccttaagt ggggaataac 120
206 gcatcgaaag atgtgctaata accgcatatc tctgaggaga aaagcagggg atcgcaagac 180
208 cttgcgctaa aggagcggcc gatgtctgat tagctagttg gtggggtaaa ggcttaccaa 240
210 ggcaacgata agtagttggt ctgagaggac gaccaaccac actgggactg agacacggcc 300
212 cagactccta cgggaggcag cagtggggaa ttttggacaa tgggcgaaag cctgatccag 360
214 ccatgccgcg tgagtgaaga aggccttcgg gttgtagagc tcttttagtc agaaagaaag 420
216 aatcatgatg aataattatg atttatgacg gtactgacag aaaaagcacc ggctaactac 480
218 gtgccagcag ccgcggtaat acgtagggtg cgagcgttaa tcggaattac tgggcgtaaa 540
220 ggggtgcgag gcggttttgt aagtcagatg tgaaagcccc gggcttaacc tgggaattgc 600
222 gtttgaaaact acaaggctag agtcgacgag aggggagtggt aattccatgt gtagcagtga 660
224 aatgcgtaga gatgtggaag aacaccgatg gcgaaggcag ctccctgggt tgacactgac 720
226 gctcatgcac gaaagcgtgg ggagcaaca ggattagata ccctggtagt ccacgcccta 780
228 aacgatgtca actggttgct ggatctaatt aaggatttgg taacgtagct aacgcgtgaa 840
230 gttgaccgcc tggggagtac ggtcgcaaga taaaactca aaggaattga cggggacccg 900
232 cacaagcggg ggattatgtg gattaattcg atgcaacgcg aaaaacctta cctacccttg 960
234 acatgcttgg aatctagtgg agacataaga gtgcccgaag gggagccaag acacaggtgc 1020
236 tgcattgctg tcgtcagctc gtgtcgtgag atgttgggtt aagtcgccga acgagcgcaa 1080
238 cccttgctac taattgctat cattctaaat gagcacttta gtgagactgc cggtgacaaa 1140
240 ccggaggaag gtggggatga cgtcaagtcc tcatggccct tatgggtagg gcttcacacg 1200
242 taatacaatg gcgtgtacag agggttgcca accgcgagg gggagccaat ctcaaaaagc 1260
244 agtcgtagt ccggatcggg gtctgcaact cgactccgtg aagtcggaat cgctagtaat 1320
246 cgcggatcag catgccgcgg tgaatacgtt cccgggtctt gtacacaccg cccgtcacac 1380
248 catgggagtg gttttcacca gaagcaggta gtttaaccgt aaggaggacg cttgccacgg 1440
250 tgggggtcat gactgggggtg

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254 <211> LENGTH: 18
255 <212> TYPE: DNA
256 <213> ORGANISM: Oligonucleotide Probe (SEQ ID NO:5)
258 <400> SEQUENCE: 5
259 cccccctctt ctggatac

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*see item 10 on ERM Summary Sheet*

18

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/659,948

DATE: 09/23/2003

TIME: 18:14:47

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

262 <210> SEQ ID NO: 6  
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 264 <212> TYPE: DNA  
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 267 <400> SEQUENCE: 6  
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 273 <212> TYPE: DNA  
 274 <213> ORGANISM: PCR primer (SEQ ID NO:7)  
 276 <400> SEQUENCE: 7  
 277 atctctagaa aattcgt 18  
 280 <210> SEQ ID NO: 8  
 281 <211> LENGTH: 19  
 282 <212> TYPE: DNA  
 283 <213> ORGANISM: Oligonucleotide probe (SEQ ID NO:8)  
 285 <400> SEQUENCE: 8  
 286 tccccactc gaagatacg 19  
 289 <210> SEQ ID NO: 9  
 290 <211> LENGTH: 17  
 291 <212> TYPE: DNA  
 292 <213> ORGANISM: PCR primer (SEQ ID NO:9)  
 294 <400> SEQUENCE: 9  
 295 atcggaacgt atcttcg 17  
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 301 <213> ORGANISM: PCR primer (SEQ ID NO:10)  
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 308 <211> LENGTH: 19  
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 310 <213> ORGANISM: PCR primer (SEQ ID NO:11)  
 312 <400> SEQUENCE: 11  
 313 tcagaaagaa agaatcatg 19  
 316 <210> SEQ ID NO: 12  
 317 <211> LENGTH: 19  
 318 <212> TYPE: DNA  
 319 <213> ORGANISM: PCR primer (SEQ ID NO:12)  
 321 <400> SEQUENCE: 12  
 322 gtctccayta gattccaag 19  
 325 <210> SEQ ID NO: 13  
 326 <211> LENGTH: 17  
 327 <212> TYPE: DNA  
 328 <213> ORGANISM: PCR primer (SEQ ID NO:13)  
 330 <400> SEQUENCE: 13  
 331 gtttgatcct ggctcag 17  
 334 <210> SEQ ID NO: 14

## RAW SEQUENCE LISTING

DATE: 09/23/2003

PATENT APPLICATION: US/10/659,948

TIME: 18:14:47

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

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 336 <212> TYPE: DNA  
 337 <213> ORGANISM: PCR primer (SEQ ID NO:14)  
 339 <400> SEQUENCE: 14  
 340 ggttaccttg ttacgactt 19  
 343 <210> SEQ ID NO: 15  
 344 <211> LENGTH: 17  
 345 <212> TYPE: DNA  
 346 <213> ORGANISM: PCR primer (SEQ ID NO:15)  
 348 <400> SEQUENCE: 15  
 349 cctacgggag gcagcag 17  
 352 <210> SEQ ID NO: 16  
 353 <211> LENGTH: 18  
 354 <212> TYPE: DNA  
 355 <213> ORGANISM: PCR primer (SEQ ID NO:16)  
 357 <400> SEQUENCE: 16  
 358 gwattaccgc ggckgctg 18  
 361 <210> SEQ ID NO: 17  
 362 <211> LENGTH: 20  
 363 <212> TYPE: DNA  
 364 <213> ORGANISM: PCR primer (SEQ ID NO:17)  
 366 <400> SEQUENCE: 17  
 367 cactctagcy ttgtagtttc 20  
 370 <210> SEQ ID NO: 18  
 371 <211> LENGTH: 1467  
 372 <212> TYPE: DNA  
 373 <213> ORGANISM: N. Aestuarii-like AOB P4clone42 16S rDNA (SEQ ID NO:18)  
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 380 cagaagtggg ggataacgca tcgaaagatg tgctaatacc gcatattctc tacggaggaa 180  
 382 agcaggggat cgaaagacct tgtgcttttg gagcgccga tgcctgatta gctagttggt 240  
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 386 tgggactgag acacggccca gactcctacg ggaggcagca gtggggaatt ttggacaatg 360  
 388 ggcgaaagcc tgatccagca atgccgcgtg agtgaagaag gcttcggggt gtaaagctct 420  
 390 ttcagtcgag aagaaaaggt tgtgactaat aatcacaact tatgatggtg ccgacagaag 480  
 392 aagcaccggc taactacgtg ccagcagccg cggtaatagc taggggtgca gcgttaatcg 540  
 394 gaattactgg gcgtaaaggg tgcgcaggcg gctttgtaag tcagatgtga aatccccggg 600  
 396 cttaacctgg gaattgcgtt tgaaactaca aagctagagt gtagcagagg ggggtggaat 660  
 398 tccatgtgta gcagtgaat gcgtagagat atggaagaac atcgatggcg aaggcagccc 720  
 400 cctgggttaa cactgacgct catgcacgaa agcgtgggga gcaaacagga ttagataccc 780  
 402 tggtagtcca cgccctaaac gatgtcaact agttgttggg ccttactagg cttggtaacg 840  
 404 tagctaacgc gtgaagtga ccgcctgggg agtacggtcg caggattaaa actcaaagga 900  
 406 attgacgggg acccgcacaa gcggtggatt atgtggatta attcgatgca acgcgaaaaa 960  
 408 ccttacctac ccttgacatg tagcgaatat tttagagata aaatagtgcc ttcgggaacg 1020  
 410 ctaacacagg tgctgcatgg ctgtcgtcag ctcgtgtcgt gagatgttgg gttaaagtccc 1080  
 412 gcaacgagcg caacccttgt cattaattgc catcatttag ttgggcactt taatgagact 1140  
 414 gccggtgaca aaccggagga aggtggggat gacgtcaagt cctcatggcc cttatgggta 1200  
 416 gggcttcaca cgtaatacaa tggcgcgtac agagggttgc caaccgcga gggggagcta 1260

Please  
 correct this  
 type of error in  
 subsequent sequences

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/659,948

DATE: 09/23/2003

TIME: 18:14:48

Input Set : A:\81289-294309.ST25.txt

Output Set: N:\CRF4\09232003\J659948.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date